

BROOKINGS COUNTY ROAD SAFETY AUDIT REVIEWS May 23, 2002

Audit Team: Cliff Reuer, Traffic & Safety Engineer, SDDOT
Scott Mathison, Lake County Highway Superintendent
Ken Skorseth, Field Services Manager, SDLTAP
Roland Stanger, Traffic/Safety Engineer, FHWA

County Road 77 from Moody County line to City of Brookings city limits:

This roadway was classified for the purposes of the RSA as a Rural Major High-speed and has a paved surface. The roadway has a posted speed limit of 55 mph. For the purposes of the audit the location information is referenced from the south end of the job (mp 0.0) increasing by miles heading north. Following are the findings and recommendations of the RSA team:

The following items were identified as areas where immediate safety improvements should be made:

- None identified

The following items were identified as areas where low cost improvements could have a positive impact on safety and should be considered in a reasonable period of time:

- At mp 0.0, Type 3 Object Markers – replace all.
- At mp 0.03 (left), Replace NO PASSING ZONE sign.
- At mp 0.05 (right), too many signs too close together – move deer sign to north of structure.
- At mp 0.05, delineator maintenance needed.
- At mp 0.1, delineator maintenance needed.
- At mp 0.7 (right), rock wall approach – replace with standard approach.
- At mp 1.0 (right), mailbox post non-crashworthy – work with landowner to replace with crashworthy one.
- At mp 1.0+ (left), old guardrail posts at historical marker site - remove.

- At 1.5 (right), mailbox has two posts - work with landowner to replace with crashworthy assembly.
- At mp 2.2, delineator maintenance needed.
- At mp 2.5 (left), farmer created approach – create proper approach or close.
- At mp 2.5+ (right), trees in right-of-way – remove.
- At mp 2.9 (right),
 - Trees in right-of-way – remove.
 - Mailbox post - work with landowner to replace with crashworthy assembly.
- At mp 3.0 (left), replace ELKTON 15 guide sign.
- At mp 4.1+ (right), remove two Chevrons just before and after structure.
- At mp 4.3 (right), remove NO PASSING ZONE sign in middle of zone.
- At mp 4.4 (right), RCP joint has separated just off roadway.
- At mp 4.45 (left), remove END SPEED ZONE sign from under SPEED LIMIT 55 sign.
- At mp 4.5 (left), on County Route 12 – move southbound Turn sign and 25 mph Advisory Speed Plaque south as per Table 2C-4 of MUTCD. There is a concern that the County 77 traffic may believe that the Turn sign is for them instead of County 12 traffic.
- At mp 4.6, most mailboxes north of here - look great.
- At mp 5.1 (right) the BUYING JUNK CARS sign is in the right-of-way and just in the clearzone. Non-crashworthy fence is located within clearzone. It is recommended that the county work with the landowner to remove fence and sign from right-of-way.
- At mp 5.4(right), SPEED LIMIT sign is small – replace with 24”X 30”.
- At mp 5.7 (right), vacant post – remove.
- At mp 5.7 (left), check fence for encroachment in right-of-way. It is recommended that the county work with the landowner if the fence is in the right-of-way.
- At mp 6.1 (left), install Type 2 Object Marker.
- Many of the signs appear low and close to the road – check signs heights and offset and upgrade to meet MUTCD.
- At structures
 - Check retroreflectivity and height of Type 3 Object Markers at structures.
 - Perform delineator maintenance
 - Clean out valley next to wheel curb
- There were several mailboxes throughout the project, although few appeared to be extremely hazardous as noted, most did not appear to be crashworthy

(see SDDOT standard plate on mailboxes for specific information). It is recommended that the county work with the landowners to get crashworthy mailboxes and turnouts where appropriate.

- Many approaches are low where they meet the roadway. Raise low approaches.

The following items were identified as high cost improvements that should be considered as funds become available for a major rehabilitation or reconstruction of the roadway:

- Mp 3.8-4.1 (right), this intersection should be reconstructed to provide a single point of intersection on the outside of the curve.
- Mp 4.2-4.5 (left), this intersection should be reconstructed to provide a single point of intersection on the outside of the curve. This intersection has a higher priority than curve at mp 3.8-4.1.

County Road 24 from County Route 77 to junction of State Route 324:

This roadway was classified for the purposes of the RSA as a Rural Major, Medium Speed. The roadway is a paved surface and the posted speed limit on the roadway was 55 mph. For the purposes of the audit the location information is referenced from the west end of the job (mp 0.0) increasing by miles heading east. Following are the findings and recommendations of the RSA team:

The following items were identified as areas where immediate safety improvements should be made:

- At mp 0.03 (right), the NO PASSING ZONE sign is not at the beginning of the pavement-marking zone – make necessary adjustments.
- At mp 0.1 (left), Stop Ahead sign is 30” – replace with 36”.

The following items were identified as areas where low cost improvements could have a positive impact on safety and should be considered in a reasonable period of time:

- At mp 0.0 (left), Replace 30” STOP sign with a 36”.
- At mp 0.0 (right), Remove STOP sign.

- Rumble strips are well placed.
- At mp 0.7 (right), remove BUMP AHEAD sign(s).
- At mp 0.7, install Type 2 Object Markers in each corner of multi culvert.
- At mp 1.0, install Type 2 Object Markers for culvert.
- Several field approaches should be dressed up.
- Many of the signs appear low and close to the road – check signs heights and offset and upgrade to meet MUTCD.

The following items were identified as high cost improvements that should be considered as funds become available for a major rehabilitation or reconstruction of the roadway:

- None identified

County Road 26A from County Route 24 to City of Brookings city limits:

This roadway was classified for the purposes of the RSA as a Rural Major, Medium Speed. The roadway is a paved surface and the posted speed limit on the roadway was 55 mph. For the purposes of the audit the location information is referenced from the south end of the job (mp 0.0) increasing by miles heading north. Following are the findings and recommendations of the RSA team:

The following items were identified as areas where immediate safety improvements should be made:

- At mp 0.1 (left), Stop Ahead sign only 30” – replace with 36”.
- At mp 1.8 (Right), Stop Ahead sign only 30” – replace with 36”.

The following items were identified as areas where low cost improvements could have a positive impact on safety and should be considered in a reasonable period of time:

- At mp 0.0 (left), install Type 2 Object Markers for culvert.
- At mp 0.2, install Type 2 Object Markers in each corner of multi culvert.
- At mp 1.0, install Type 2 Object Markers for culvert.
- Several field approaches should be dressed up.

The following items were identified as high cost improvements that should be considered as funds become available for a major rehabilitation or reconstruction of the roadway:

- None identified

County Road 77 from 0.4 miles north of State Route 14B to Deuel County line:

This roadway was classified for the purposes of the RSA as a Rural Major High-speed and has a paved surface. The roadway has a posted speed limit of 55 mph. For the purposes of the audit the location information is referenced from the south end of the job (mp 0.0) increasing by miles heading north. Following are the findings and recommendations of the RSA team:

The following items were identified as areas where immediate safety improvements should be made:

- At mp 3.7 (left), Remove ROAD CLOSED warning sign from back of STOP sign.
- At mp 14.2 (left), install NO PASSING ZONE sign.

The following items were identified as areas where low cost improvements could have a positive impact on safety and should be considered in a reasonable period of time:

- At mp 0.2 (right), mailbox - work with landowner to replace with crashworthy assembly.
- At mp 1.0 (left) Remove NO PASSING ZONE – middle of zone.
- At mp 1.3, install Type 2 Object Marker for both ends of culvert.
- At mp 1.6, install Type 2 Object Marker for both ends of culvert.
- At mp 2.7, install Type 2 Object Marker for both ends of box culvert.
- At mp 3.3, install Type 2 Object Marker for both ends of box culvert.
- At mp 3.3 (left), reshape around headwall.
- At mp 3.6, install Type 2 Object Marker for both ends of box culvert.
- At mp 3.9, install Type 2 Object Marker for both ends of culvert.
- At mp 4.1, install Type 2 Object Marker for both ends of box culvert.

- At mp 4.5, structure
 - Check retroreflectivity and height of Type 3 Object Markers at structures.
 - Perform delineator maintenance
 - Clean out valley next to wheel curb
- At mp 4.8, install Type 2 Object Marker for both ends of cattle pass.
- At mp 5.1, install Type 2 Object Marker for both ends of box culvert.
- At mp 5.1 (right), mailbox - work with landowner to replace with crashworthy assembly.
- At mp 5.4, install Type 2 Object Marker for both ends of culvert.
- At mp 5.9, install Type 2 Object Marker for both ends of culvert.
- At mp 6.0 (left), replace NO PASSING ZONE sign.
- At mp 6.5, install Type 2 Object Marker for both ends of culvert.
- At mp 6.7, install Type 2 Object Marker for both ends of culvert.
- At mp 6.7 –7.0, trees out of clearzone but hazardous.
- At mp 7.2, install Type 2 Object Marker for both ends of culvert.
- At mp 7.5, install Type 2 Object Marker for both ends of culvert.
- At mp 8.2+, install Type 2 Object Marker for both ends of culvert.
- At mp 8.5 (right), wagon wheels in right-of-way - work with landowner to remove.
- At mp 8.5 –8.6 (right), trees in clearzone.
- At mp 9.0, structure
 - Check retroreflectivity and height of Type 3 Object Markers at structures.
 - Perform delineator maintenance
 - Clean out valley next to wheel curb
- At mp 10.2, install Type 2 Object Marker for both ends of box culvert.
- At mp 11.4, install Type 2 Object Marker for both ends of culvert.
- At mp 11.6 (right), rural address sign is low – raise.
- At mp 12.0, install Type 2 Object Marker for both ends of box culvert.
- At mp 12.3 (right), approach built of rock – rebuild to current standard.
- At mp 12.5, install Type 2 Object Marker for both ends of box culvert.
- At mp 12.8 (right), Dead trees – remove.
- At mp 13.0 (left), mailbox mounted on plow - work with the landowner to get crashworthy mailbox.
- At mp 13.1, install Type 2 Object Marker for both ends of box culvert.
- At mp 13.9, install Type 2 Object Marker for both ends of box culvert.
- At mp 14.4, install Type 2 Object Marker for both ends of box culvert.

- Last half mile, check no passing zones for warrants for both directions.
- Many of the signs appear low and close to the road – check signs heights and offset and upgrade to meet MUTCD.
- Several approaches are low where they meet the roadway. Raise low approaches.
- There were several mailboxes throughout the project, although few appeared to be extremely hazardous as noted, most did not appear to be crashworthy (see SDDOT standard plate on mailboxes for specific information). It is recommended that the county work with the landowners to get crashworthy mailboxes and turnouts where appropriate.

The following items were identified as high cost improvements that should be considered as funds become available for a major rehabilitation or reconstruction of the roadway:

- None identified